

REPUBLIC OF MOLDOVA

POWER MARKET RULES

Regulatory Development

and

Power Market Operations

Moldova Energy Sector Reform

Contract No. LAG-I-00-98-00005-00

Task Order No. OUT-LAG-I-806-98-00005-00

Final Report

Prepared for:

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March 1999

Contents

1. INTRODUCTION	8
2. GENERAL TERMS AND DEFINITIONS	10
3. OBJECTIVES AND PRINCIPLES.....	16
4. POWER MARKET PARTICIPANTS	18
5. GOVERNANCE.....	20
6. POWER MARKET STRUCTURE AND OPERATIONS.....	26
7. SCHEDULING AND DISPATCH	27
8. BILATERAL CONTRACTS	33
9. POWER OFFERS.....	36
10. GENERATION AND OTHER RESOURCES	39
11. BALANCING MARKET PAYMENTS.....	43
12. ANCILLARY SERVICES	45
13. DISPATCHING AND PRICING UNDER SPECIAL CONDITIONS	45
14. SETTLEMENT CENTER	46
15. MARKET FUNDS ADMINISTRATION.....	50
16. MONITORING OF POWER PROVIDERS AND POWER RESOURCES	51
17. TRANSMISSION SERVICE.....	53
18. TRANSMISSION LOSSES	55
19. SEVERABILITY AND RENEGOTIATION.....	58
20. AMENDMENTS OF POWER MARKET RULES	58

Detailed Contents

1. INTRODUCTION.....	8
1.1. DESIGN OF THE MARKET	8
1.2. OBJECTIVE.....	8
1.3. MARKET FRAMEWORK	8
1.3.1. Power Market Rules [This document]	8
1.3.2. Operating Procedures for Market Implementation	8
1.3.3. System Rules and Regulations.....	8
1.4. SCOPE.....	9
2. GENERAL TERMS AND DEFINITIONS.....	10
3. OBJECTIVES AND PRINCIPLES	16
3.1. OBJECTIVES	16
3.2. PRINCIPLES	17
4. POWER MARKET PARTICIPANTS	18
4.1. PARTICIPATION REQUIRED.....	18
4.2. EFFECTIVENESS.....	18
4.3. OTHER ENTITIES	18
4.4. COMPLIANCE WITH RULES	18
4.5. FINANCIAL OBLIGATIONS	19
4.6. VOTING RIGHTS	19
4.6.1. Participants' Votes	19
4.6.2. Votes Required for Decisions.....	19
4.6.3. Disputes.....	19
4.7. MEETINGS OF PARTICIPANTS	19
4.7.1. Annual Meeting	19
4.7.2. Additional Meetings	19
4.7.3. Meeting Agenda	19
4.8. PARTICIPANTS TO RETAIN SEPARATE IDENTITIES.....	19
5. GOVERNANCE.....	20
5.1. MARKET BOARD	20
5.2. TERM OF DIRECTORS	20
5.3. ALTERNATES	20
5.4. VOTES	21
5.5. NUMBER OF VOTES NECESSARY FOR ACTION.....	21
5.6. OFFICERS.....	21

5.7. MEETINGS.....	21
5.8. NOTICE OF MEETINGS	21
5.9. DUTIES AND AUTHORITIES.....	21
5.10. ATTENDANCE AT MEETINGS.....	22
5.11. DISPUTE RESOLUTION.....	22
5.12. SUSPENSION OF ACTION	23
5.13. ARBITRATION	23
5.13.1. Procedure	23
5.13.2. Selection of Arbitrator	24
5.13.3. Costs.....	24
5.13.4. Hearing location	24
5.13.5. Pre-hearing submissions.....	24
5.13.6. Hearing.....	24
5.13.7. Decision.....	25
6. POWER MARKET STRUCTURE AND OPERATIONS.....	26
6.1. BILATERAL CONTRACTS	26
6.2. BALANCING POWER CONTRACTS	26
7. SCHEDULING AND DISPATCH.....	27
7.1. SCHEDULING.....	27
7.2. SCHEDULING AND DISPATCH RIGHTS	27
7.3. SCHEDULING PRINCIPLES.....	27
7.4. INPUTS FOR DEVELOPING FORECAST SCHEDULE.....	28
7.5. DEVELOPMENT OF FORECAST DEMAND.....	28
7.6. DATABASE CREATION	28
7.7. USE OF HISTORIC DEMAND DATA	28
7.8. CREATION OF FORECAST DEMAND.....	28
7.9. FORECAST SCHEDULE OUTPUTS.....	29
7.10. FORECAST SCHEDULE UPDATES	29
7.11. DISPATCH.....	30
7.12. DISPATCH PRINCIPLES	30
7.13. OVERVIEW OF REAL TIME DISPATCH PROCESS	30
7.13.1. Prior to operating hour	30
7.13.2. Within the operating hour.....	30
7.14. ENERGY MARKET	31
7.14.1. Energy Clearing Price Determination.....	31
7.14.2. Obligations in the Energy market.....	31
7.14.3. Settlement In The Energy Market.....	31

7.14.4. <i>Payments for other services</i>	32
8. BILATERAL CONTRACTS	33
8.1. NON-DISPATCHABLE (FIXED SCHEDULE) BILATERAL SYSTEM POWER CONTRACTS.....	33
8.2. DISPATCHABLE BILATERAL SYSTEM POWER CONTRACT.....	33
8.3. UNIT CONTRACT.....	34
8.4. CALL OPTION CONTRACTS	34
8.5. PREDETERMINED CONDITIONS.....	35
9. POWER OFFERS	36
9.1. POWER OFFER SUBMITTAL PROCESS	36
9.1.1. <i>Energy</i>	36
9.1.2. <i>Standing power offers</i>	36
9.1.3. <i>Validating the power offers</i>	36
9.2. POWER OFFERING BY GENERATORS.....	37
9.2.1. <i>General Requirements for generator power offers</i>	37
9.2.2. <i>Specific Rules for generator power offers</i>	37
9.2.3. <i>Submitting generator redeclarations</i>	37
10. GENERATION AND OTHER RESOURCES	39
10.1. MAINTENANCE AND OPERATION IN ACCORDANCE WITH GOOD UTILITY PRACTICE	39
10.2. CENTRAL DISPATCH	39
10.3. MAINTENANCE AND REPAIR.....	39
10.4. OBJECTIVES OF DAY-TO-DAY SYSTEM OPERATION	39
10.5. GENERATOR DATA	39
10.5.1. <i>Claimed Capacity and Identification</i>	39
10.5.2. <i>Generator Operating Parameters</i>	40
10.6. GENERATOR POWER MARKET OFFER PARAMETERS	41
11. BALANCING MARKET PAYMENTS	43
11.1. PAYMENT OBLIGATION	43
11.2. DEFAULT.....	43
11.3. FORCE MAJEURE	43
11.4. NO WAIVER	44
11.5. CONFLICTING OBLIGATIONS.....	44
11.6. RECORDS.....	44
12. ANCILLARY SERVICES	45
13. DISPATCHING AND PRICING UNDER SPECIAL CONDITIONS	45
14. SETTLEMENT CENTER	46

14.1.	ESTABLISHMENT OF INITIAL SETTLEMENT PROCEDURES AND FUTURE MODIFICATION TO SETTLEMENT PROCEDURES.....	46
14.2.	INFORMATION TO BE PROVIDED TO THE SETTLEMENTS PROCEDURE FROM EACH PARTY.....	46
14.3.	RELATIONSHIP OF POWER MARKET RULES TO PAYMENTS	46
14.4.	LOSS CALCULATIONS	46
14.4.1.	<i>Transmission losses.....</i>	46
14.4.2.	<i>Calculation of Transmission losses.....</i>	47
14.5.	DISTRIBUTION LOSSES.....	47
14.6.	CALCULATION OF PAYMENTS	47
14.6.1.	<i>Allocation of transmission losses</i>	47
14.7.	CALCULATION OF NET INTERCHANGE	47
14.8.	ALLOCATION OF MARKET-BASED RESOURCES SERVED THROUGH THE BALANCING MARKET	48
14.9.	CALCULATION OF PAYMENTS DURING A SHORTFALL OF FUNDS	48
14.10.	COMPUTER SOFTWARE AND HARDWARE	48
14.10.1.	<i>Specification of hardware and software.....</i>	48
14.11.	HARDWARE SPECIFICATIONS	48
14.12.	ACCOUNTING AND REPORTING	48
14.13.	TESTING/AUDITING OF METERING EQUIPMENT.....	48
14.14.	PERIODIC AUDIT OF THE SETTLEMENTS	49
14.15.	DISPUTES AND DISPUTE RESOLUTION.....	49
14.16.	BUDGET AND TARIFF FOR SETTLEMENT CENTER SERVICES	49
15.	MARKET FUNDS ADMINISTRATION.....	50
15.1.	PURPOSE	50
15.2.	FUNDS ADMINISTRATOR	50
15.3.	COLLECTION AND DISBURSEMENT OF FUNDS.....	50
15.4.	FUNDS ADMINISTRATION COST SHARING	50
15.5.	PAYMENT SECURITY	50
16.	MONITORING OF POWER PROVIDERS AND POWER RESOURCES.....	51
16.1.	WITHHOLDING OUTPUT	51
16.2.	OTHER ANOMALOUS BEHAVIOR.....	52
16.3.	MITIGATION	52
16.4.	MARKET MONITORING AND PERIODIC REPORTS BY SYSTEM OPERATOR	52
17.	TRANSMISSION SERVICE.....	53
17.1.	OPERATION OF FACILITIES	53
17.2.	TRANSMISSION PRICING.....	53
17.3.	OBJECTIVES OF TRANSMISSION SERVICE PRICING.....	53
17.4.	RECOMMENDED TRANSMISSION SERVICE PRICING.....	53

18. TRANSMISSION LOSSES	55
18.1. POWER SYSTEM MODEL.....	55
18.2. NETWORK NODES	55
18.3. NETWORK AREAS	55
18.4. TIE LINE ASSETS	55
18.5. TIE LINE ASSETS MUST BE METERED.....	55
18.6. GENERATION ASSETS.....	55
18.7. LOWER VOLTAGE CONNECTED GENERATION.....	56
18.8. LOAD ASSETS	56
18.8.1. <i>Technical Requirements Of The Power System Model With Respect To Loads</i>	56
18.8.2. <i>Customer Load</i>	56
18.8.3. <i>Station Service (unit shut down) Loads</i>	56
18.8.4. <i>Determination of Load Asset Quantities on a Node by Node Basis</i>	56
18.8.5. <i>Assigned Meter Reader Responsibilities</i>	56
18.9. DEVELOPMENT OF ELECTRICAL LOAD VALUES	57
18.10. CALCULATION OF THE DEFINED QUANTITY ELECTRICAL LOAD	57
18.11. DETERMINATION OF TOTAL TRANSMISSION SYSTEM LOSSES.....	57
19. SEVERABILITY AND RENEGOTIATION	58
20. AMENDMENTS OF POWER MARKET RULES	58

1. INTRODUCTION

1.1. DESIGN OF THE MARKET

The Moldova Power Market is designed to implement a competitive system for the economic purchase and sale of electricity which is centered on a market for bilateral power contracts, supplemented by a Balancing Market, and supported by system security and ancillary services procured by a System Operator. Under rules established by market Participants, the System Operator administers Participants' bilateral contracts, manages a Balancing Market to assure the matching of resources to load requirements and also provides market co-ordination and reliability services.

1.2. OBJECTIVE

The objective of the Moldova Power Market is to create a competitive and economically efficient wholesale electricity market, to maintain adequate and reliable electric service, to create conditions which will attract necessary investment to the power sector and to develop sound commercial relationships among market members.

1.3. MARKET FRAMEWORK

The market framework will be implemented with the development and formal adoption of the following documents (collectively referred to as "Power Market Rules and Procedures"):

1.3.1. Power Market Rules [This document]

Principles and procedures which govern all market transactions, commercial relationships among Participants, obligations imposed on Participants to meet established reliability standards and the role of the System Operator.

1.3.2. Operating Procedures for Market Implementation

Administrative procedures for the implementation of the Power Market Rules by the System Operator and technical procedures affecting Power Market operations.

1.3.3. System Rules and Regulations

Technical requirements affecting the physical facilities necessary to implement the Power Market in compliance with established standards of service adequacy, quality and reliability, including:

- a) Configuration and operation of the high voltage transmission system;
- b) Specifications for facilities interconnected with the transmission system;
- c) Standards applicable to metering and communications equipment; and
- d) Analysis of system expansion requirements in response to Participants' planned future resource additions and estimates of changes in consumer demands.

1.4. SCOPE

The Power Market Rules and Procedures define and govern the relationships between all energy market Participants and address the roles of the National Energy Regulatory Commission and the Department of Energy in administering government oversight of the Moldovan electricity system.

The Power Market Rules and Procedures establish a basic framework for the electric industry, but are intended to be amended, replaced or repealed over time in response to restructuring, privatisation or other changes in electric industry conditions.

2. GENERAL TERMS AND DEFINITIONS

Adjusted Net Interchange (ANI)	Energy purchased from, or sold to, the Balancing Market by a Supplier during any hour, determined as follows: (a) the Kilowatts produced by, or delivered to, a Participant, as adjusted for losses, as appropriate, <u>minus</u> The sum of: (b) the Electrical Load of the Participant for the hour, plus (c) the kilowatt-hours delivered by Participant to other Participants pursuant to bi-lateral contracts
ANRE	National Agency for Energy Regulation.
Bilateral Contract Self Schedule	A specific MW (kW) schedule level, which represents the participant's Must Take portion of the energy output of a resource during a settlement period.
Bilateral Contract Statement	Information Participant submits to the Market Operator to define the specific quantity, operational parameters, and price, where applicable, of either an internal or external transaction between two parties.
Bilateral Unit Entitlement Contract	Wholesale purchase contract between a single purchaser and a single seller pursuant to which the purchaser is entitled to either some portion or all of the market products which a specific generating unit is capable of providing.
Billing Period	The time period used for financial settlements of power transactions between buyers and sellers of electricity, generally not in excess of one calendar month.
Central Dispatch Service	Service provided by the Dispatch Center to operate Moldova's integrated electric power system in order to: Maintain scheduled interchange with other interconnected systems, within the limits of good utility practice; Match, at all times, the load within Moldova's electric power system with resources provided by the power output of the generators within the electric power system plus energy purchased from entities outside Moldova; Maintain the frequency of the electric power system within reasonable limits as specified in applicable operating procedures; and Provide sufficient generating capacity or other resources to maintain adequate operating reserves.
Contract Type	Generic definitions used to characterize transactions by their fundamental distinguishing attributes, such as: unit entitlement contracts, system contracts with a specific MW schedule, dispatchable system contracts, and Balancing Power contracts.

Control Area	Moldova's integrated electricity system, which is bounded by interconnections with other countries' facilities at the boundaries of the transmission system, at which metering and/or telemetry communications are located, and within which the System Operator directly controls generation to maintain agreed interchange schedules with external control areas and contribute to frequency regulation of the interconnections.
Curtailment	A procedure to reduce load to meet resource constraints as applied to: customer(s), groups of customers, district(s), distribution company(s) and/or the entire power system.
Curtailment List	A list of customer(s), group of customers, district(s), distribution company(s) included in the Curtailment Plan.
Curtailment Plan	A Curtailment Plan is a plan developed by Central Dispatch, or distribution company, or district to reduce load during the capacity shortage.
Delivery Point	The point at which facilities ownership changes on the Moldovan electric system, which occurs at connections to the high voltage transmission system, the distribution system and/or at the interconnection point with a customer. Metering is normally located at or adjacent to the Delivery Point.
Direct Consumer	An individual or legal entity taking service from a non-regulated supplier (a Direct Consumer may hold a license for its own non-regulated supply) and having a delivery point with an electronic communication channel connected to central dispatch or equivalent provisions for measuring energy flows.
Dispatch	The process of controlling real-time, minute-to-minute generator output levels, tie point power flows for External Transactions, and the interruption status of Dispatchable Loads.
Dispatch Center	A division of the System Operator which schedules and dispatches system resources to meet electric load requirements and to assure reliable system operations.
Dispatch Instruction	Directions issued electronically or by telephone by Central Dispatch to Participants which may include instructions to start up, shut down, raise or lower generation, or change interchange schedules. Such instructions may also include orders to change the operating status or mode of facilities in the Moldovan Transmission System.
Dispatch Price	Price at which a unit or a system contract is offered to Central Dispatch for use in supplying energy to the system.
Dispatchable Contract	Contract that provides for transactions which may be dispatched in accordance with the contract price and quantity information and any other operating constraints, as submitted to Central Dispatch.
Dispatchable Load	The amount of Supplier's load in MW declared to be available for interruption during a specific hour.

Energy	Power produced in the form of electricity, as measured in kilowatt-hours or megawatt-hours.
Energy Clearing Price (ECP)	Price paid for energy used in the Balancing Market.
Energy Entitlement	A right to receive all or a portion of the electric output of a generating unit or units to which a Participant is entitled as an owner or as a purchaser pursuant to a bilateral contract.
External Transactions	A transaction to purchase or sell energy that requires an interchange schedule between the Central Dispatch and another control area for the transaction to be implemented.
Forecast Demand	The System Operator's forecast of the total Moldova load in Mw for the Settlement Period.
Forecast Schedule	The output of the Central Dispatch unit commitment process that identifies, among others, the projected output of each generator and the projected dispatch level of an external transaction contract for each Settlement Period of a Scheduled Dispatch Period
Heating Season Capacity	The maximum dependable load-carrying ability in kilowatts of an electric generator or combination of units (exclusive of capacity required for station use, including heating system) during the heating period.
High Operating Limit	The maximum MW value at which a Participant is willing to operate a generator on a continuous basis.
Internal Transaction	A transaction to purchase or sell power that does not require an interchange schedule between the Moldova Control Area and another control area.
License	Authorization granted by ANRE to participate in the Power Market.
Licensees	Entities holding a License.
Low Operating Limit	The minimum MW value at which the Participant is willing to operate its generator on a continuous basis.
Market Funds Administrator	An independent, private commercial bank in Moldova which administers payments for Power Market services.
Power Market Rules and Procedures	Term used for convenience to refer to all of the documents governing the Power Market: Power Market Rules, Operating Procedures for Market Implementation and System Rules and Regulations.
Merit Order	The compiled list of all Power Offers from all Participants sorted in order of ascending Power Offer Prices.
Operable Capacity	The portion of the installed capacity of an electric generating unit, or units, which is operating or available in any hour to respond to dispatch instructions within a specific period after notice by Central Dispatch.
Operating Procedures for Market Implementation	Administrative procedures required to implement and support the Power Market and technical procedures affecting Power Market operations.

Operating Reserve	Operable Capacity of an electric generating unit, or units that are capable of providing contingency protection by loading to supply energy in excess of current loads within a stated time after a request from Central Dispatch.
Participant Invoice	The billing statement prepared by the energy Settlement Center and administered by the Market Funds Administrator which sets forth amounts due from Participants for services provided by the System Operator or amounts to be paid to Participants or others for services provided to the System Operator to meet the needs of Participants.
Participants	Licensees who sell and/or buy electricity in the Power Market and hold licenses for generation or supply of electric energy at regulated or non-regulated tariffs.
Power Market	Commercial arrangements for the purchase and sale of electricity in the Power System which are governed by Power Market Rules and Procedures.
Power Market Rules (or Market Rules)	Principles and Procedures which govern all market transactions, commercial relationships among Participants and obligations imposed on Participants to meet established reliability standards.
Power Offer	The information related to a resource's price, MW availability, and self-schedule information, which a Participant has submitted to Central Dispatch.
Power Offer Daily Deadline	The point of time before which a Participant must submit its offer information that is to be effective for the next Scheduled Dispatch Period. For the Energy Market, the daily trading deadline shall be 1200.
Power Offer Duration	Specifies start date and time and end date and time for a transaction. The power offer duration may be set for hours, days, months and years, or limited by the life of the generator.
Power Offer Price	The price, adjusted for losses, at which a Supplier offers to furnish energy delivered to the transmission system for sale to other Suppliers in the Balancing Market.
Power System	The facilities in Moldova which are used to generate, transmit, distribute and provide electric service to consumers in Moldova.
Pre-Determined Conditions	A condition that determines the extent to which contracted energy is available to the buyer in any given Settlement Period.
Scheduled Dispatch Period	The shortest period for which Central Dispatch performs and publishes a projected dispatch schedule based on projected electrical loads and actual offers and participant-directed schedules for resources. The current scheduled dispatch period is defined as the period beginning 0001 and ending 2400 each day.
Seasonal Capacity	The maximum dependable load carrying ability in kilowatts of an electric generating unit or combination of units (exclusive of capacity required for station use) during the season.

Self-Schedule	The desired MW output levels for a generator or dispatchable load at which a Participant requests to operate the resource during some or all of the hours of a scheduled dispatch period. It is submitted as part of its energy offer. The hourly MW output levels submitted represent requests to be dispatched by the central dispatch at the specified MW output levels during the specified hours.
Settlement	The process of accounting for Participants' energy transactions and determining the payments to be made to Participants and charges to be collected from Participants for services provided by the System Operator.
Settlement Obligations	The quantity of the energy services provided under bilateral contracts or by the System Operator to meet a participant's requirements during a settlement period.
Settlement Period	The 60-minute period beginning on the hour and ending 60 minutes later
Settlement Resource	The quantity of applicable market products that a Participant supplies in a settlement period.
Settlement Center	The organization which performs energy flow analysis, accounting and reporting on behalf of the System Operator.
Short Notice External Transaction	An External Transaction with a fixed schedule that is submitted to Central Dispatch after the weekly offers deadline has passed for the Scheduled Dispatch Period in which the transaction is to begin.
Supplier	Entity which holds either a regulated tariff supply License or a non-regulated tariff supply License.
Supplier's Load	<p>Load (in kilowatts) of a Supplier during any particular hour, which is the total during such hour of the following: a) kilowatt-hours delivered by such Supplier to its retail customers for consumption; b) kilowatt-hours of electrical losses and unaccounted for use by the Supplier; c) kilowatt-hours consumed directly by such Supplier, plus d) kilowatt-hours delivered by such Supplier to parties outside of the Moldova Power Market.</p> <p>Supplier's Load is subject to adjustment, if and as appropriate, for: a) interchange transactions; b) transit transactions across the system of such Supplier; or c) other electrical losses:</p>
System Contract	Any wholesale contract for the purchase/sale of the market products, other than a unit contract.
System Operator	Moldtranselectro acting in its capacity as the entity holding the license for central dispatch services.
System Rules and Regulations	Technical requirements affecting the physical facilities necessary to implement the Power Market in compliance with established standards of service adequacy, quality and reliability.

Transmission Provider	Moldtranselectro acting in its capacity as the entity holding the license for transmission services.
Weekly Trading Deadline	Deadline for participant's to submit their energy offers for the next week, which shall be set at 12:00 p.m. Friday of each week.

3. OBJECTIVES AND PRINCIPLES

3.1. OBJECTIVES

The objectives of the wholesale power market are to:

- a) Provide all retail customers with a continuous, adequate and reliable supply of electricity at reasonable prices.
- b) Operate the Power System in accordance with the requirements of a market-based economy, providing clear, transparent, non-discriminatory information and procedural rules to all Participants or potential Participants.
- c) Improve the financial condition of the electricity sector by requiring the full settlement of invoices due among sector entities, thereby providing incentives to suppliers to obtain payments from consumers on a timely basis.
- d) Enhance Moldova's energy security by creating market conditions which avoid the accumulation of energy debts through prompt payments to primary fuel and energy suppliers;
- e) Provide an orderly, disciplined electricity market which will help to attract foreign direct investment to enable Moldova to obtain needed resources from private capital markets.
- f) Establish a rule-based system to facilitate the purchase and sale of reliable electricity supplies, subject to continuing regulatory oversight and review.
- g) Encourage competitive, more efficient supply markets by permitting each Supplier to optimize its electric resource mix by selling, purchasing or exchanging resources through bilateral contracts.
- h) Assure reliable and economic operation of Moldova's bulk power supply system through central dispatch of all power resources, including imports and exports of electricity, to achieve lowest costs consistent with security of supply .
- i) Establish an energy accounting settlements system which will accurately measure system energy flows during each hour and, subsequently, divide the total amount among Participants by direct assignment of contract quantities or by other established allocation rules, recording the results in individual accounts maintained for each Participant.
- j) With respect to Balancing Market or Ancillary Services administered by the System Operator, establish an independent Market Funds Administrator to collect amounts due from Participants for market services received and to disburse payments to Participants or other entities which provide such services.
- k) Provide non-discriminatory, open access to the power network by all Participants by establishing transparent connection, operating and administrative procedures.
- l) Provide a framework that will permit consumers to choose their electricity supplier from among competitive suppliers.

3.2. PRINCIPLES

The Power Market shall be based on the following principles:

- a) Power Market Participants must hold licenses issued by ANRE.
- b) Power Market Participants must comply with Power Market Rules and Procedures.
- c) The governance of the Power Market shall be structured and implemented in a fair, transparent and non-discriminatory manner which provides for the full participation and contribution of all Participants.
- d) Power Market Participants shall be permitted the greatest possible freedom to make their own commercial decisions consistent with Power Market objectives and principles.
- e) Power Market Rules and Procedures must limit the opportunity for any Participant to abuse the energy market to the detriment of other Participants or consumers.
- f) All Suppliers are required to pay for transmission, dispatch and/or distribution services in accordance with tariffs approved by ANRE.
- g) Technical and operational information concerning Transmission facilities shall be made available to all Participants.
- h) Dispatch operations shall be coordinated with the national electric power systems of neighboring countries.
- i) The Power Market should provide correct price signals to resource providers and stimulate efficient resource use.

4. POWER MARKET PARTICIPANTS

4.1. PARTICIPATION REQUIRED

Individuals or legal persons required to participate in Moldova Power Market include:

- a) All entities connected to or capable of being connected to the transmission grid for the purpose of supplying electricity and who have been issued a Generation License;
- b) All entities connected to or capable of being connected to a Delivery Point who purchase electricity for the purpose of resale and who have been issued a Regulated Supply License;
- c) All Individuals or Legal Persons connected to or capable of being connected to a Delivery Point for the purpose of purchasing electricity for only their own consumption and who have been issued a Non-Regulated Supply License;
- d) All Individuals or Legal Persons who receive electricity at a Delivery Point for the purpose of resale to a Regulated or Non-Regulated Licensee, Direct Consumer or foreign entity and who have been issued a Non-Regulated Supply License; and
- e) Those entities which hold licenses issued by ANRE for generation or supply at regulated or non-regulated tariffs must and shall be entitled to become a Participant.

4.2. EFFECTIVENESS

Until December 31, 2003, Power Market “Participants” (or “Market Members”) are licensees who sell and/or buy electricity in the Power Market and hold licenses for:

- a) Generation; and
- b) Supply of electric energy at regulated tariffs;

Beginning with January 1, 2004 or such later date as ANRE may determine, participation in the power market shall be expanded to include entities holding a license for the supply of electric energy at non-regulated tariffs.

Any legal entity which obtains a Generation License, a License for Regulated Supply or a License for Non-Regulated Supply issued by ANRE shall become a Participant upon the effective date of said license.

4.3. OTHER ENTITIES

Other power sector entities that provide services in the market (such as the System Operator and the Transmission Provider) required for the proper functioning of the Power Market as well as foreign entities engaged in the import or export of electricity who do not hold a license issued by ANRE shall not be eligible to become Participants.

4.4. COMPLIANCE WITH RULES

All Participants shall comply with all Power Market Rules And Procedures as adopted by the Market Board from time to time and approved by ANRE.

4.5. FINANCIAL OBLIGATIONS

For any Participant that the Market Board reasonably determines may fail to meet its financial obligations under these Power Market Rules, the Market Board may require reasonable credit review procedures which shall be made in accordance with standard commercial practices. In addition, the Market Board, may prescribe for such entity or Participant a requirement that the entity or Participant provide and maintain in effect an unconditional and irrevocable letter of credit as security to meet its responsibilities and obligations, or an alternative form of security proposed by the entity or Participant and acceptable to the Market Board and consistent with commercial practices that protects the Participants against the risk of non-payment.

4.6. VOTING RIGHTS

4.6.1. Participants' Votes

In all matters which require decisions based on the votes of Participants, each Participant shall have a number of votes equivalent to: a) Participant's volume of market transactions as measured in KWh at the transmission level during the most recent twelve month period; divided by b) the total volume of such market transactions by all Participants; multiplied by 1000.

4.6.2. Votes Required for Decisions

Unless otherwise decided by a 2/3rds vote of Participants, all matters shall be decided by majority vote.

4.6.3. Disputes

Any disputes arising out of the determination of Participants' voting rights shall be decided by ANRE.

4.7. MEETINGS OF PARTICIPANTS

4.7.1. Annual Meeting

There shall be an Annual Meeting of Participants each year during the first quarter at a date to be determined by the Market Board.

4.7.2. Additional Meetings

Participants by vote at the Annual Meeting may elect to hold additional meetings during the course of the year. All meetings shall be open to public and media attendance.

4.7.3. Meeting Agenda

At its meetings, Participants may consider any matters related to the Power Market and adopt resolutions or take such other actions as may be within their authority and which are not expressly delegated to the Market Board pursuant to these Power Market Rules.

4.8. PARTICIPANTS TO RETAIN SEPARATE IDENTITIES

Participants shall not become partners with any other legal entity by reason of these Power Market Rules or their activities hereunder, but as to each other and to third persons, they shall be and remain independent entities in all matters.

5. GOVERNANCE

5.1. MARKET BOARD

The Power Market shall be governed by a Market Board consisting of:

- a) One voting Director appointed by each Participant holding either a Generation License or a Regulated Supply License;
- b) One voting Director elected by Participants holding a Non-Regulated Supply License, provided such Participant has engaged in energy transactions aggregating at least 5,000,000 Kwh during the past twelve month period, voting as a group in accordance with the provisions for Participant voting¹; and
- c) One non-voting Director representing the Department of Energy.

Voting Directors shall be officers or senior executives of a Participant.

At the first meeting of Participants held after January 1, 2001, and annually thereafter, Participants shall decide by vote the number of voting Directors to be elected to the Market Board for the ensuing twelve month period.

5.2. TERM OF DIRECTORS

An elected Director may be replaced by the Participant represented on the Market Board by such Director upon delivery of written notice of such replacement to the secretary of the Market Board in the following circumstances:

- a) A Director voluntarily resigns from the Market Board, or his employment is terminated by his Participant employer;
- b) If a criminal action is filed against the Director according to Moldovan legislation;
- c) The Director is unable to exercise his duties because of illness or death;
- d) If the Market Board makes a formal finding that the Director consistently does not satisfactorily perform his duties;

5.3. ALTERNATES

A Participant who is a Director of the Market Board may designate, by a written notice given to the secretary of the Market Board, an alternate to substitute for said Director on a temporary or permanent basis. Said alternate shall have all the powers of the original Director, including the power to vote.

¹ This provision becomes effective not sooner than January 1, 2004.

5.4. VOTES

Each voting Director of the Market Board shall have one vote, which may be cast in person by the Director or the Director's designated alternate or by another person pursuant to a written proxy dated not more than one month previous to the meeting and delivered to the secretary of the Market Board at or prior to the meeting at which the proxy vote is cast.

5.5. NUMBER OF VOTES NECESSARY FOR ACTION

The adoption of actions by the Market Board shall require affirmative votes by voting Directors aggregating at least 60% of the number of votes which the voting Directors in attendance at a meeting at which a quorum is present are entitled to cast. A majority of the voting Directors at any time shall constitute a quorum.

5.6. OFFICERS

At its annual meeting, the Market Board shall elect from its voting Directors a Chair and a Vice-Chair; it shall also elect a secretary who need not be a Director. These officers shall have the powers and duties usually incident to such offices, such as conducting a meeting, making procedural decisions, taking and preparing minutes, etc.

5.7. MEETINGS

The Market Board shall hold its annual meeting during the first calendar quarter and subsequent to the Annual Meeting of Participants. Annual Board Meetings shall be held at such a time and place as the Chair shall designate and shall hold other meetings in accordance with a schedule adopted by the Market Board or at the call of the Chair. Any two Directors may call a special meeting of the Market Board in the event that the Chair shall fail to call such a meeting within three business days following the Chair's receipt from at least one of such Directors of a request specifying the subject matters to be acted upon at the meeting. All meetings shall be open to public and media attendance.

Any regular or special meeting of the Market Board may be conducted in person face to face, or by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other.

5.8. NOTICE OF MEETINGS

Written notice of each meeting of the Market Board shall be given to each Director of the board not less than three business days prior to the date of the meeting. The notice shall specify the principal subject matter expected to be acted upon at the meeting.

5.9. DUTIES AND AUTHORITIES

The Market Board shall have the duty and requisite authority to administer, enforce and interpret the provisions of these Power Market Rules in order to accomplish the objectives of these Market Rules, including making any decision or determination necessary to implement these Market Rules, unless such authority is expressly delegated to others.

The Market Board shall supervise the preparation and adoption of Operating Procedures for Market Implementation and System Rules and Regulations.

The Market Board shall have the authority, after consultations with other wholesale power market committees, if any, and the System Operator, to establish or approve consistent standards with respect to any aspect of arrangements between Participants and non-Participants, which it determines may be necessary to protect the reliability of Moldova power system, and to review such arrangements to determine compliance with such standards.

The Market Board, or its designee, shall have the authority to act on behalf of all Participants in carrying out any action properly taken pursuant to the provisions of these Market Rules. Without limiting the foregoing general authority, the Market Board, or its designee, shall have the authority on behalf of all Participants to file with the ANRE and other appropriate bodies these Market Rules and documents amending or supplementing these Market Rules, including Operating Procedures for Market Implementation and System Rules and Regulations. The Market Board shall, in addition, have the authority to represent the collective interests of Participants in proceedings before the ANRE.

The Market Board shall have the duty and requisite authority to provide for the sharing by Participants, on such basis as the Market Board may deem appropriate, of payments and costs which are not otherwise reimbursed under these Market Rules and which are incurred by Participants or under arrangements with non-Participants and approved or authorized by the Market Board as necessary in order to meet or avoid short-term deficiencies in the amount of resources available to meet Moldova power system's reliability objectives.

The Market Board shall have the power and authority to establish committees and working groups, subordinated to the Market Board, to provide oversight and review of various areas of market activities at the Market Board's direction.

The Market Board shall have the duty and requisite authority to act on appeals to it from the actions of other committees, if any, and to appoint a special committee to administer the alternate dispute resolution procedures or to take any other action if it determines that such action is necessary or appropriate to achieve a prompt resolution of disputes.

The Market Board shall have such further powers and duties as are conferred or imposed upon it by other sections of these Market Rules.

5.10. ATTENDANCE AT MEETINGS

Each Director of the Market Board, or that Director's designee, shall be entitled to attend any meeting of any other wholesale power market committee, if any, and shall have a reasonable opportunity to express views on any matter to be acted upon at the meeting.

5.11. DISPUTE RESOLUTION

Any Participant may appeal to ANRE any action taken by the Market Board. Such an appeal shall be taken prior to the end of the tenth business day following the meeting of the Market Board to which the appeal relates by giving to the ANRE and to the secretary of the Market Board a signed and written notice of appeal and by mailing a copy of the notice to each Director of the Market Board. Pending decision on the appeal, the aforesaid action shall be suspended.

Any Participant that is aggrieved by an action of the Market Board and elects not to appeal to ANRE may submit the disputed matter for resolution by arbitration hereunder, if the action of the Market Board:

- a) Requires such Participant to make a payment or to take any action pursuant to these Market Rules; or
- b) Reduces the amount of any receipt or forbids, pursuant to these Market Rules, the taking of any action by the participant; or
- c) Denies Participant any right to which it is entitled under the provisions of these Market Rules or imposes on it a burden to which it is not subject under the provisions of these Market Rules; or
- d) Results in the termination of the participant's status as a Participant or imposes any penalty on the participant; or
- e) Results in an allocation of support obligations; or
- f) Fails to grant in full an application for transmission service.

5.12. SUSPENSION OF ACTION

If the Participant seeks review of a vote of the Market Board pursuant to this Section, the vote to be reviewed shall be suspended for 30 days following the receipt of notice from the Aggrieved Party or until such time as the matter is resolved, unless the Market Board determines that such suspension may imperil Power Market operations or the stability or reliability of the Power System.

No legal or regulatory proceeding (except those reasonably necessary to toll statutes of limitations), shall be initiated by any Participant with respect to any such matter while proceedings are pending under this Section with respect to the matter.

5.13. ARBITRATION

5.13.1. Procedure

The Participant seeking review of a vote of the Market Board shall give written notice to the secretary of the Market Board within ten business days of the vote, and shall mail or telecopy a copy of its notice to each Director of the Market Board. The Participant providing notice under this Section shall be referred to herein as the "Aggrieved Party."

5.13.2. Selection of Arbitrator

The Aggrieved Party and the Market Board shall attempt to choose by mutual agreement a single neutral arbitrator to hear the dispute. If the parties fail to agree upon a single arbitrator within seven calendar days of the giving of notice of arbitration to the secretary of the Market Board, each party shall be asked to appoint an arbitrator, and then these two arbitrators will select a third arbitrator. In either case, the arbitrator(s) shall be knowledgeable in matters involving the electric power industry, and shall not have any business or financial relationships with the Power Market or its Participants (other than previous experience as an arbitrator) unless otherwise mutually agreed by the Aggrieved Party and the Market Board.

5.13.3. Costs

Each party shall be responsible for the following costs, if applicable:

- a) its own costs incurred during the arbitration process (except that this does not preclude billing the Aggrieved Party for its share of associated expenses that may include the Market Board's arbitration costs); plus
- b) One half of the common costs of the arbitration including, but not limited to, the arbitrator's fee and expenses, the rental charge for a hearing room and the cost of a court reporter and transcript, if required.

5.13.4. Hearing location

Unless otherwise mutually agreed, the site for all arbitration hearings shall be the System Operator office.

5.13.5. Pre-hearing submissions

The Aggrieved Party shall provide the arbitrator(s) with a brief written statement of its complaint and a statement of the remedy or remedies it seeks, accompanied by copies of any documents or other materials it wishes the arbitrator(s) to review. The Market Board will provide the arbitrator(s) with a copy of Market Rules and all relevant implementing documents, a brief description of the action being arbitrated, copies of the minutes of all Market Board meetings at which the matter was discussed, a brief statement explaining why the Market Board believes its decision should be upheld by the arbitrator, and copies of any documents or other materials the Market Board wishes the arbitrator to review. These submissions shall be made within three days after the selection of the arbitrator. In addition, each party shall designate one or more individuals to be available to answer questions the arbitrator may have concerning the documents or other materials submitted by that party. The answers to all such questions shall be reduced to writing by the party providing the answer and a copy shall be furnished to the other party.

5.13.6. Hearing

A hearing will be held no later than seven days after the selection of the arbitrator(s) to permit the parties to present their arguments, which shall be limited to issues raised in the pre-hearing filings. The scheduling of further hearings at the request of either party or on the arbitrator's own motion shall be within the sole discretion of the arbitrator(s)

5.13.7. Decision

The arbitrator's decision shall be due, unless the deadline is extended by mutual agreement of the Aggrieved Party and the Market Board, within five days of the hearing or within thirty days of the Aggrieved Party's initiation of arbitration, whichever occurs first. If there is a board of arbitrators, the decision is derived by a simple majority. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the Market Rules.

6. POWER MARKET STRUCTURE AND OPERATIONS

6.1. BILATERAL CONTRACTS

- a) By November 15 of each calendar year the System Operator shall provide all Suppliers with a month-by-month forecast of energy and peak load requirements for the Moldova Control Area for the next calendar year.
- b) Based on their analysis of this forecast and estimates of their customers load requirements, Suppliers shall engage in bilateral contracts with resource providers to cover their estimated Energy Obligation during each hour of the next calendar year. By December 15 of each calendar year, Suppliers shall submit information to the System Operator identifying its resource providers and describing the technical parameters of its contractual resources for the next calendar year.

6.2. BALANCING POWER CONTRACTS

- a) Balancing Power contracts shall be adequate to provide secure energy supplies during the next calendar year to cover imbalances, if any, between the aggregate of Suppliers' actual energy requirements and those provided under Suppliers' bilateral contracts in any hour.
- b) At the request of Participants, by December 15 of each calendar year the System Operator shall negotiate contracts for Balancing Power with one or more power supply entities located in one or more of the neighbouring control areas bordering Moldova.
- c) Proposed contracts for Balancing Power shall be presented to the Market Board for review and approval.
- d) At the direction of the Market Board, the System Operator shall execute contracts for Balancing Power on behalf of Participants.
- e) Participants' obligations with respect to Balancing Power contracts shall be set forth in a separate Balancing Power Agreement between the System Operator, acting as agent for Suppliers, and Suppliers, all of whom must be signatories to such Balancing Power Agreement.
- f) Any financial obligations arising under contracts for Balancing Power shall become the obligations of Suppliers.
- g) All contracts for Balancing Power shall be approved by ANRE.

7. SCHEDULING AND DISPATCH

7.1. SCHEDULING

Scheduling is the process of developing the Forecast Schedule showing the projected dispatch levels for generators, External Transactions and Dispatchable Loads for the next Scheduled Dispatch Period. The trading interval and settlement period for any Dispatch Period shall be one hour.

7.2. SCHEDULING AND DISPATCH RIGHTS

The resource provider and the System Operator each have rights related to the Scheduling of resources depending on the point in time in the Scheduling process, as follows:

- a) Prior to the daily deadline for a Scheduled Dispatch Period, the resource provider has the right to submit a self-schedule for that resource covering the Scheduled Dispatch Period.
- b) After the daily deadline and taking into account the self-scheduled resources submitted by providers, the System Operator has the right to determine schedules for all resources or portions of resources in accordance with all applicable Market Rules.

7.3. SCHEDULING PRINCIPLES

The System Operator will use the following principles in developing the Forecast Schedule:

- a) The Weekly Forecast Scheduled period is the period beginning Monday at time 0000 and ending Sunday at time 2400.
- b) The Scheduled Dispatch period is the 24-hour period beginning 0000 and ending 2400 each day.
- c) The Forecast Schedule will be developed to ensure that sufficient resources are scheduled to meet the anticipated total Forecast Demand. Until such time as additional generating capacity is available in Moldova, Operating Reserve Requirements of the Control Area will be covered by resources imported from neighboring control areas.
- d) The Forecast Schedule will be developed with the objective of minimizing total production costs while maintaining reliability standards over the Scheduled Dispatch Period.
- e) The System Operator will accept Self-Schedules for resources to the extent such schedules do not, in the System Operator's judgement, violate a transmission constraint or cause an excess generation problem.
- f) Any constraints on Self-schedules imposed by the System Operator shall be documented in writing, reported on a regular basis and subjected to analysis and review by the Market Board and/or ANRE.

7.4. INPUTS FOR DEVELOPING FORECAST SCHEDULE

The System Operator will factor the following information into the development of the Forecast Schedule:

- a) Control Area Forecast Demand for the Scheduled Dispatch period developed by the System Operator;
- b) Forecast of Reserve Requirements for the Scheduled Dispatch period;
- c) Known generating resources' constraints (e.g. minimum run times, minimum down times, etc.) for the current Scheduled Dispatch period;
- d) Redclarations of resource status;
- e) Power Offers information;
- f) Known or forecasted transmission constraints.

7.5. DEVELOPMENT OF FORECAST DEMAND

The process for developing Forecast Demand shall include the use of computer software models, a weather and demand database, and the application of professional experience and knowledge of the intricacies of demand as it responds to weather and other sociological conditions in the Control Area.

The forecasting process can be broken down into three steps:

7.6. DATABASE CREATION

Hourly weather data and corresponding demand data will be collected and stored in a common database, including hourly temperature, humidity and precipitation measurements. Any sociological impact on demand, such as the effect of school schedules or major public events is also recorded for reference.

7.7. USE OF HISTORIC DEMAND DATA

Each day the System Operator will determine the historical day or days from the demand database which exhibits weather characteristics similar to the Scheduled Dispatch period being forecast. Once found, the demand curve for that historical day will become one basis for daily demand estimates, subject to adjustment as may be appropriate for use in determining the Forecast Demand.

7.8. CREATION OF FORECAST DEMAND

The outputs from the similar day analysis and other computer software models are compared, and manual adjustments are made to create the final Forecast Demand. The similar day method provides the most accurate output because it correlates all of the weather variables. Its output is the starting point for developing the Forecast Demand. The System Operator may modify these outputs using its judgement in creating the final Forecast Demand.

7.9. FORECAST SCHEDULE OUTPUTS

The System Operator will provide Participants with information in accordance with the System Operator Information Instructions.

The System Operator will develop and submit to Participants the initial Weekly Forecast Schedule by XX:XX adjusted by periodic review each day for the next Scheduled Dispatch period and will:

- a) issue Dispatch Instructions to the designated contact for each power plant for the start up and shut down of its generator(s);
- b) provide Participants with forecast hourly schedule of each generator's output including acceptance or rejection of a Self-Schedule;
- c) submit Forecast Schedule of Dispatchable Load interruptions to the designated contact for the Dispatchable Load;
- d) submit Forecast Schedule of External Transactions (available to the Participant party to the transaction);
- e) submit forecast of hourly Energy Clearing Prices (ECP) (available to all);
- f) submit hourly Forecast Demand (available to all);
- g) other information as provided for in the System Operator Information Instructions.

7.10. FORECAST SCHEDULE UPDATES

After the initial Forecast Schedule for a Scheduled Dispatch Period is provided to Participants, the System Operator will update the Forecast Schedule as required due to changing system conditions.

- a) Any change in system condition that causes the System Operator Control Area net electrical demand for any single hour in the dispatch period to change by +/- X MW, or by +/- X MW for 4 or more consecutive hours, shall require an update of the Forecast Schedule. The System Operator may also update the Forecast Schedule for events such as, but not limited to, the following:
 - i. substantial changes to the Forecast Demand required due to changes in the weather forecast, or outages caused by inclement weather;
 - ii. changes in generator capabilities as identified by Participant redeclarations;
 - iii. changes in External Transactions;
 - iv. change in the Operating Reserve Requirement for the Moldova Control Area.
- b) The System Operator will provide Participants, in accordance with the information instructions, the following information in each update:
 - i. updated schedules of generator start ups and shut downs to the designated contact for each generator;

- ii. updated hourly schedules of generator output (available to the owner(s)/Entitlement holder(s) of that generator);
- iii. updated schedules of Dispatchable Load interruptions to the designated contact for that Dispatchable Load;
- iv. updated schedules of External Transactions (available to the Participant party to the transaction);
- v. updated forecast of hourly ECPs (available to all);
- vi. updated Forecast Demand (available to all);
- vii. other information as provided for in the System Operator information instructions.

7.11. DISPATCH

Dispatch is defined as the determination of the real time, minute-to-minute generator output levels, tie point flow levels for External Transactions, and the interruption status for Dispatchable Loads (collectively referred to below as “Desired Dispatch Points”).

7.12. DISPATCH PRINCIPLES

The Desired Dispatch Points are determined with the objectives of (in priority order):

- a) Maintaining at all times at least the minimum level of system reliability and security consistent with applicable National standards.
- b) Minimizing system Energy production costs for the Scheduled Dispatch Period, after taking into account Self-scheduled resources of Suppliers.

7.13. OVERVIEW OF REAL TIME DISPATCH PROCESS

The dispatch process will operate in two time frames as described below.

7.13.1. Prior to operating hour

On an hourly basis, the System Operator will:

- a) review the forecasted and actual updated system conditions for the upcoming hour and finalize the schedules of External Transactions (from the Forecast Schedule) with the operating authorities of adjacent control areas;
- b) co-ordinate schedules of all short notice External Transactions for the next hour with the operating authorities of adjacent control areas;

7.13.2. Within the operating hour

- a) The System Operator may modify the Desired Dispatch Point as required after taking into account the following:
 - i. Control Area Forecast Demand;
 - ii. redeclarations;
 - iii. known transmission constraints.

- b) Periodically throughout the hour the System Operator will calculate a Desired Dispatch Point for each generator and Dispatchable Load.
- c) The System Operator will issue Dispatch Instructions during the hour indicating:
 - i. the Desired Dispatch Point for each synchronised generator;
 - ii. a Desired Dispatch Point (on/off/level of partial interruption) for each Dispatchable Load

7.14. ENERGY MARKET

7.14.1. Energy Clearing Price Determination

Taking into account the information regarding market Participants' bilateral contracts for energy and power offers submitted by Participants by the daily trading deadline, the System Operator shall conduct a real economic dispatch in accordance with provisions outlined in Market Rule No. 8.

The most expensive MW dispatched in the merit economic order during the given hour shall set the energy clearing price (ECP) in \$/MWh for the hour. The energy clearing price must not exceed the energy price of resources available during the hour under the System Operator's Balancing Power contract(s) as described in **Market Rule No. 11**.

7.14.2. Obligations in the Energy market.

Each Supplier shall be obligated to provide energy resources equal in amount to its Electrical Load during each hour through its entitlements under bilateral contracts or by purchasing energy from the Balancing Market.

7.14.3. Settlement In The Energy Market.

- a) The Settlement Center of the System Operator shall collect and verify all information pertaining to Participants' resources and obligations, transmission losses, and energy flows between Moldova's Control Area and neighboring control areas.
- b) Based on the information collected, the Settlement Center shall calculate Participants' Adjusted Net Interchange and Electrical Load.
- c) Market Participants whose Adjusted Net Interchange in any given hour is positive is deemed to be sellers to the Balancing Market in that hour. The amount of their payment for the respective hour shall be computed by the following formula:

$$\text{AM.DUE} = \text{ANI} * \text{ECP}$$

Where:

AM.DUE = Amount Due to the market Participant in the hour;

ANI = Adjusted Net Interchange in MWh;

ECP = Energy Clearing Price, in \$/MWh.

- d) Market Participants whose Adjusted Net Interchange in any given hour is negative are deemed to be buyers from the Balancing Market in that hour. The amount of their payment for the respective hour shall be computed by the following formula:

$$\text{AM.PAID} = \text{ANI} * \text{ECP}$$

Where:

$$\text{AM.PAID} = \text{Amount due to be Paid in the hour;}$$

7.14.4. Payments for other services

In addition to the payments for energy described above, Suppliers are responsible for payments pursuant to tariffs for dispatch services, transmission, and distribution services, which are approved by ANRE and in effect at the time of energy settlement.

8. BILATERAL CONTRACTS

There can be several types of bilateral contracts: unit contracts, system contracts with fixed schedule, dispatchable system contracts, system contracts with fixed schedule up to certain level and dispatchable above that level, and Balancing Powers contracts.

If both parties to a contract are internal Participants, the contract may be treated as purely a financial instrument. If at least one party to the contract is external to the Control Area, then the contract has to be approved by the System Operator to be physically implemented.

8.1. NON-DISPATCHABLE (FIXED SCHEDULE) BILATERAL SYSTEM POWER CONTRACTS.

These contracts assume that buyer must consume all energy supplied by seller under contract, or pay for it anyway, even if not all energy is consumed. These contracts can be made between:

- a) distribution company and a generator inside the Control Area;
- b) distribution company and a generator outside the Control Area;
- c) two distribution companies;
- d) distribution company and a trader within the Control Area;
- e) distribution company and a trader outside the Control Area.

At the minimum such contracts should indicate the maximum amount of MW allowable to take in any given hour during contract duration period, acceptable confirmation of transmission arrangements, have a reference to a daily schedule of deliveries by hours, and conditions under which power deliveries may be interrupted, and in transition period should specify how delivery deficiencies are compensated.

If a contract is between distribution company and a generator, or between distribution company and a trader outside of the Control Area, it requires physical implementation by the System Operator in co-ordination with the neighboring control area dispatch center. Otherwise such contracts can be submitted to the System Operator to be included in the settlement, while being ignored by the System Operator in the physical dispatch. At the time of the settlement the buyer will be credited with the amount of energy to which he is entitled under contract, while seller's obligation will be correspondingly increased by the same amount.

8.2. DISPATCHABLE BILATERAL SYSTEM POWER CONTRACT.

- a) These contracts assume that buyer has a right to buy up to certain amount of energy specified under contract as long as contractual price is less than a reference price. Usually market clearance price serves as a reference price. These contracts can be made between:
 - i. two distribution companies;
 - ii. distribution company and a trader within the Control Area;
 - iii. distribution company and a trader outside the Control Area.

- b) At the minimum such contracts must indicate the maximum allowable amount of MW which the purchaser may take in any given hour during the contract duration period, have a dispatch price(s), acceptable confirmation of transmission arrangements, and conditions under which power deliveries may be interrupted.
- c) If a contract is between distribution company and a trader outside of Moldova Control Area, it requires physical implementation by the System Operator in co-ordination with the neighboring control area dispatch center. Otherwise such contracts can be submitted to the System Operator to be included in the settlement, while being ignored by the System Operator in the physical dispatch. At the time of the settlement buyer would be credited with contractual energy only in the hours when contractual price is less than reference price, and seller's obligations will be correspondingly increased in the same hours by the same amount.
- d) There also can be partially dispatchable system power contracts where a only a fixed block of the contracted energy is available up to a specified level and the balance of contracted energy is dispatchable above the fixed block level.

8.3. UNIT CONTRACT

- a) These contracts are wholesale purchase contracts pursuant to which the buyer is entitled to either some or all of the market products which the generating unit is capable of providing.
- b) These contracts can be made between distribution companies and generators within Moldova Control Area
- c) At the minimum such contracts should contain amount of MW or percentage of the unit seasonal claimed capability sold, acceptable confirmation of transmission arrangements, and conditions under which power deliveries may be interrupted.
- d) These contracts will be submitted to the System Operator to be included in the settlement, while being ignored in physical dispatch. At the time of the settlement buyer will be credited with his entitlement of the unit output.

8.4. CALL OPTION CONTRACTS

- a) These contracts provide that the buyer has a right during the contract duration period to receive power from the seller in accordance with conditions specified in the contract, and that the seller must have the specified amount of power reserved and available at buyer's request. Such contracts usually have a reservation price which buyer pays to seller regardless whether he chooses to receive power. These contracts can be made between:
 - i. two distribution companies;
 - ii. distribution company and a trader within the Control Area;
 - iii. distribution company and a trader outside of the Control Area;
 - iv. System Operator and a trader outside of the Control Area.

- b) At the minimum such contracts must indicate the maximum allowable amount of MW which the purchaser may take in any given hour during the contract duration period, have a dispatch price(s), acceptable confirmation of transmission arrangements, conditions which would trigger delivery of power, and conditions under which power deliveries may be interrupted.
- c) If a contract is between Moldova System Operator or a distribution company and a trader outside of the Control Area, it requires physical implementation by the Moldova System Operator in co-ordination with the neighboring control area dispatch center. Otherwise such contracts can be submitted to the System Operator to be included in the settlement, while being ignored by the System Operator in the physical dispatch.

8.5. PREDETERMINED CONDITIONS.

- a) All types of power contracts can have a number of Predetermined Conditions attached to them, which means that, if the specified condition is satisfied, then specific contract terms become operable or effective.
- b) The exact nature and number of allowed predetermined conditions should be determined and adopted in Operating Procedures upon recommendation of the System Operator in collaboration with market Participants.

9. POWER OFFERS

The term “Power offer” refers to all information submitted by Participants related to the price, quantity, technical parameters and timing of offers to provide specific services in one or more of the defined markets.

This section lists the specific data that must be provided within a power offer.

9.1. POWER OFFER SUBMITTAL PROCESS

9.1.1. Energy

- a) A Participant must submit to the System Operator its power offer for the power market prior to the daily trading deadline for the power market.
- b) Participants may submit a power offer up to X days prior to the relevant daily trading deadline for any scheduled dispatch period that the power offer is to be effective.
- c) Participants may resubmit the information for a power offer multiple times prior to the applicable daily trading deadline. System Operator will use the last power offer received prior to the daily trading deadline in its power offer evaluation processes.
- d) A Participant may review at any time any of its power offers information previously submitted to System Operator for the previous or next X scheduled dispatch periods. System operator will not allow Participants to submit, review, change, or add any power offer information for another participant.

9.1.2. Standing power offers

- a) Standing power offers are used by the System Operator for a generator or dispatchable load or for power supply, for which Participant has not submitted a valid power offer for a scheduled dispatch period or month, as appropriate.
- b) The System Operator develops standing power offers in the following manner:
 - i. The standing power offer for a generator or dispatchable load will be the last valid power offer received by the System Operator.
 - ii. In the event the standing power offer contains a self-schedule for the resource, System Operator will include this self-schedule in its power offer evaluation and scheduling processes and will dispatch the resource to such schedule.

9.1.3. Validating the power offers

- a) The System Operator performs validity checks on each power offer. These validity checks are “sanity checks” and are only designed to identify gross errors in the power offer information submitted by the Participant (generators, marketers, discos, etc) and to assure that the power offer can be implemented by the Moldovan system. The System Operator is not responsible for the accuracy of the power offer information. The Participant submitting the power offer must verify that the information submitted is accurate.

- b) The System Operator will promptly notify the Participant if a power offer has been validated or rejected and will identify the reason if the power offer is rejected.
- c) The System Operator shall time stamp each valid power offer.
- d) The System Operator will maintain a log of all power offers that are validated.
- e) A Participant may submit a new power offer to replace one that is declared invalid by System Operator. However the Participant may not resubmit such information once the daily or monthly deadline has passed whichever is appropriate. In this instance, System Operator will use a standing power offer as defined in Section above.

9.2. POWER OFFERING BY GENERATORS

9.2.1. General Requirements for generator power offers

- a) The complete set of information required to form a generator power offer.
- b) The System Operator will accept power offers for a generator only from the licensed power market participant.
- c) The power offer data must reflect the operating capabilities of the generator that are expected, at the time of submittal of the data, to exist during each settlement period of the scheduled dispatch period.
- d) The System Operator shall establish procedures for Participants to provide this information.

9.2.2. Specific Rules for generator power offers

The following rules apply to information in the power offers related to the power market:

- a) Price and quantity information must be submitted for the range of output from 0 MW to the high operating limit as stated in the power offer.
- b) Prices may be submitted for more than one segment below the generator's low operating limit but only one price may be submitted for the segment below claimed low limit.
- c) Participants may submit generator constraints.
- d) Participants may submit an hourly self-schedule denoting the minimum MW output level the Participant wishes to operate a generator.

9.2.3. Submitting generator redeclarations

Redeclarations are restricted to changes in the physical capabilities of the resource to perform according to the power offer parameters submitted in its power offer to be operated by System Operator.

Participants must designate a single point of contact (hereinafter the designated entity) to receive System Operator dispatch instructions. Unless alternate arrangements are accepted by the System Operator, only the designated entity or System Operator, in accordance with description below, may submit a redeclaration for a generator.

The designated entity must submit to the System Operator a redeclaration any time a restriction exists such that the generator cannot be dispatched by the System Operator in accordance with one of the submitted power offer parameter values (other than power offer price).

- a) The designated entity shall notify System Operator when the condition that prompted an earlier redeclaration has been partially or completely corrected and will provide the revised redeclaration of power offer parameters associated with such full or partial restoration of unit capabilities.
- b) At any time, the designated entity may provide the System Operator with unit information (other than price) beyond that included in the power offer parameters or allowed in redeclarations. The System Operator will use such information as necessary to maintain the reliable operation of the system. For example, a generator may inform System Operator that it can provide additional output in the event of a reliability emergency by taking extraordinary operating measures.
- c) A redeclaration is made when the designated entity notifies System Operator and provides it with the new parameter values to be used in lieu of the power offer parameter values.
- d) The System Operator shall change the appropriate power offer parameter values in its data base to reflect the redeclaration and shall use the redeclared parameter values in its settlement process.
- e) A redeclared power offer parameter value will stay in effect, notwithstanding subsequent power offers, until the designated entity submits a subsequent redeclaration restoring the previously power offer parameter value or modifying the redeclared parameter value.
- f) The System Operator may unilaterally enter a redeclaration of a generator's power offer parameter values when it observes that a generator is not operating in accordance with those power offers parameter values. The System Operator shall notify the designated entity as soon as possible when it has made such a redeclaration.

10. GENERATION AND OTHER RESOURCES

10.1. MAINTENANCE AND OPERATION IN ACCORDANCE WITH GOOD UTILITY PRACTICE

Each Participant shall, to the fullest extent practicable, cause all generating facilities and other resources owned or controlled by it to be designed, constructed, maintained and operated in accordance with good utility practice.

10.2. CENTRAL DISPATCH

Subject to the following sentence, each Participant shall, to the fullest extent practicable, subject all generating facilities and other resources owned or controlled by it to central dispatch by the dispatch licensee; provided, however, that each Participant shall at all times be the sole judge as to whether or not and to what extent safety requires that at any time any of such facilities will be operated at less than full capacity or not at all. Each Participant may remove from central dispatch a generating facility or other resources owned or controlled by it if and to the extent such removal is permitted by Market Rules and Procedures.

10.3. MAINTENANCE AND REPAIR

Each Participant shall, to the fullest extent practicable:

- a) cause generating facilities and other resources owned or controlled by it to be withdrawn from operation for maintenance and repair only in accordance with maintenance schedules reported to and published by the System Operator from time to time in accordance with procedures established in accordance with Market Rules and Procedures;
- b) restore such facilities to good operating condition with reasonable promptness, and
- c) accelerate or delay maintenance and repair at the reasonable request of the System Operator in accordance with Market Rules and Procedures.

10.4. OBJECTIVES OF DAY-TO-DAY SYSTEM OPERATION

The day-to-day scheduling and co-ordination through the dispatch licensee of the operation of generating units and other resources shall be designed to assure the reliability of Moldova bulk power system at the lowest practicable aggregate dispatch cost to Moldova Control Area.

10.5. GENERATOR DATA

The data associated with a generator is broken down into three (3) categories.

10.5.1. Claimed Capacity and Identification

The following data pertaining to a generator is maintained by the System Operator and, while displayed on the Power offer submittal screens, cannot be entered via the electronic Power offer submittal system.

10.5.1.1. Participant Identification Number (ID)

The identification of the participant. Entered by the System Operator

10.5.1.2. Generator Name

The official resource name as entered by the System Operator

10.5.1.3. Generator ID

The official resource ID as assigned and entered by the System Operator

10.5.1.4. Generator Seasonal Claimed Capabilities.

The Summer and Winter Claimed Capability of the generator. These values are maintained by the System Operator, and may be audited in accordance with operating procedures.

10.5.1.5. Claimed Low Limit

The minimum MW value to which a Participant is able to operate a generator during the time periods when excesses generation or other abnormal power system conditions exist.

10.5.1.6. Staffing Hours

The hours of the day, expressed in start time and end time, that the generator is staffed. That is, the System Operator will assume staff is on location during these hours. This information is used in scheduling to determine generator commitment schedules and in dispatch to determine short term generator availability.

10.5.1.7. Staff Call in Time

The time, in hours, required to call in sufficient staff to operate the Generator. This information is used in scheduling and dispatch to determine short-term generator availability.

10.5.1.8. Black Start Capability

An indicator (yes or no) of whether the generator has Black Start Capability.

10.5.2. Generator Operating Parameters

The offered physical parameters of a generator are submitted by the participant, with the power offer, when the data changes. The default for this information is the last valid set of information submitted to the System Operator.

10.5.2.1. Minimum Run Time

The minimum time, in hours, which must elapse following synchronisation before being able to comply with a Dispatch Instruction to de-synchronise the Generator.

10.5.2.2. Minimum Shutdown Time

The minimum time, in hours, following de-synchronisation that must elapse prior to being able to comply with a Dispatch Instruction to start-up and synchronise to the transmission system.

10.5.2.3. Start-up Time From Hot Conditions

When staffed, the time, in hours, it will take to synchronise a generator following the receipt of a dispatch instruction to start up the unit. Start-up time from hot conditions implies that the generator has been de-synchronised for less time than the time specified by shutdown time cold conditions applies. When not staffed, the staff call in time will be added by the System Operator as appropriate.

10.5.2.4. Start-up Time From Cold Conditions

When staffed, the time, in hours, it will take to synchronise a generator following the receipt of a dispatch instruction to start up a generator if the generator has been de-synchronised for longer than the time period specified by shut-down time cold conditions applies. When not staffed, the staff call in time will be added by the System Operator as appropriate.

10.5.2.5. Shut-Down Time Cold Condition Applies

The time, in hours, after a de-synchronisation of a unit when the generator is considered to be in a cold condition.

10.5.2.6. Start-up Profile

The time, in hours, required to ramp to the claimed low limit after the generator has synchronised to the system.

The output level of the generator in MWh for each hour of the ramp to claimed low limit.

10.6. GENERATOR POWER MARKET OFFER PARAMETERS

Characteristics of a generator which may change with every dispatch period. This information is generally dynamic and may be submitted with a power offer when the information changes. The default for this information is the set of information, which is on file with the System Operator.

10.6.1.1. High Operating Limit (All generator types)

The high operating limit value, submitted for each trading interval, may be higher than the seasonal claimed capability. The high operating limit will be used as the maximum value to which the System Operator will dispatch a generator under normal system conditions. In addition, the high operating limit is the maximum value to which the System Operator will allocate operating reserves to the generator.

10.6.1.2. Low Operating Limit (All generator types)

The minimum MW value to which the Participant is willing to operate a generator for each hour. The low operating limit will be used as the minimum value to which the System Operator will dispatch a generator under normal system conditions.

When a self-schedule has been submitted for a generator, the low operating limit will automatically be set to the self schedule value by the System Operator.

10.6.1.3. Manual Response Rate (All generator types)

The response rate, in MW/minute, at which the Participant is willing to have a generator change its output while on manual control between the high and low operating limits.

The manual response rate is the response rate that will be used to calculate the maximum amount of reserve to be allocated to a generator, and determine the maximum change in self-scheduled dispatch points in any two consecutive trading intervals.

10.6.1.4. Energy and Quantity Information (All generator types)

Price - The Participant may submit prices that are applicable to some or all of the MW quantities of energy as described below.

Quantity - The Participant may submit one set of quantities expressed in MW that are applicable to all trading intervals of the scheduled dispatch period.

10.6.1.5. Energy Self-Schedule (All generator types)

A specific generator output level, expressed in MW, which represents the Participant's desired minimum output level of the generator in a trading interval. To the extent that system reliability can be maintained, the System Operator will accept the self-schedule.

11. BALANCING MARKET PAYMENTS

11.1. PAYMENT OBLIGATION

Each Participant is obligated to pay when due all amounts invoiced to it by Settlement Center. If a Participant disputes an invoice in whole or part, it shall be entitled to continue to receive service so long as the Participant:

- a) continues to make all payments not in dispute, and
- b) pays into an independent escrow account maintained by the Market Funds Administrator for that purpose the portion of the invoice in dispute, pending resolution of the dispute.

If the Participant fails to meet these two requirements for continuation of service, the System Operator may suspend service, in whole or part, to the Participant thirty days after the giving of notice to the Participant of the intention to suspend service, in accordance with ANRE policy.

11.2. DEFAULT

In the event a Participant fails, for any reason other than a billing dispute to pay when due in accordance with the wholesale market procedures all amounts invoiced to it by the Market Funds Administrator, or the Participant fails to perform any other obligation under these Market Rules, and such failure continues for at least ten days, the System Operator shall notify the Participant that it is in default and jointly with the Market Board may initiate a proceeding before the ANRE to terminate such Participant's status as a Participant. Pending ANRE action on such termination, the System Operator may suspend service, in whole or part, to the Participant on or after 30 days after the giving of such notice and the initiation of such proceeding, unless the Participant cures the default within such 30-day period. No such termination of a Participant's status as a Participant shall affect any obligation of, or to, such former Participant arising prior to the effective time of such termination.

11.3. FORCE MAJEURE

A Participant shall not be considered to be in default in respect of any obligation hereunder if prevented from fulfilling such obligation by an event of Force Majeure. An event of Force Majeure means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment not due to lack of proper care or maintenance, any order, regulation or restriction imposed by a court or governmental military or lawfully established civilian authorities, or any other cause beyond a Participant's control, provided that no Force Majeure shall excuse any payment obligation hereunder. A Participant whose performance under these Market Rules is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under these Market Rules, and shall promptly notify the Market Board of the commencement and end of any event of Force Majeure.

11.4. NO WAIVER

No waiver of the performance by a Participant of any obligation under these Market Rules with respect to any default or any other matter arising in connection with these market shall be effective unless given by the Market Board. Any such waiver by the Market Board in any particular instance shall not be deemed a waiver with respect to any subsequent performance, default or matter.

11.5. CONFLICTING OBLIGATIONS

No Participant shall be a party to any other agreement, which in any manner is inconsistent with its obligations under these Market Rules.

11.6. RECORDS

Each Participant shall keep such records as may reasonably be required by the System Operator, and shall furnish to these bodies such records, reports and information (including forecasts) as it may reasonably require, provided the confidentiality thereof is protected in accordance with the System Operator information policy.

12. ANCILLARY SERVICES

The following services are considered to be ancillary services:

- a) operating reserves;
- b) frequency control;
- c) reactive power support;
- d) system restoration.

Currently the Moldova Power System receives these services from the Ukraine control area. Resources within Moldova's Control Area do not have capabilities to furnish these services.

In the course of development of power market and privatization of power resources, if there is an interest developed among private investors in construction of generation resources within the Control Area, at that time the issue of market arrangement for ancillary services should be addressed. For now we recommend that the System Operator procures these services from Ukraine control area and consider separating the price of these services from the total price to have the information available to be used in the process of designing the market for ancillary services in the future.

13. DISPATCHING AND PRICING UNDER SPECIAL CONDITIONS

As the development of the Power Market moves forward, there will arise conditions on the system when the normal rules for dispatch and settlement will need to be modified when the system experiences specific, unusual operating conditions (e.g.: operations during a fuel emergency). Rather than speculate as to what these provisions might be in the case of Moldova, this section is left for development in response to actual needs as they become an issue for Participants.

14. SETTLEMENT CENTER

The Settlement Center will be created under the management of the System Operator. The Settlement Center will be staffed with a competent management team and the technological expertise to provide the services required by these Settlement Procedures.

The management team will institute appropriate internal controls to insure clear, transparent, and correct settlements for the Moldovan Power Market.

The function of the Settlement Center will be completely separate from the functions and services of the Central Dispatch Service Division.

14.1. ESTABLISHMENT OF INITIAL SETTLEMENT PROCEDURES AND FUTURE MODIFICATION TO SETTLEMENT PROCEDURES

The Settlement Center of the Center Dispatch will develop a set of draft initial procedures.

The Settlement Center will develop proposed modifications to the Settlement Procedures. Any such proposed modifications will require ANRE approval. The Settlement Center will provide written notice to all power sector Licensees of the proposed modifications at the same time that the Settlement Center files the information with the ANRE.

14.2. INFORMATION TO BE PROVIDED TO THE SETTLEMENTS PROCEDURE FROM EACH PARTY

The service organizations and the power market Participants must provide all relevant information to the Settlement Center in a timely basis.

Licensed power sector entities and any other entities that deliver or receive energy on the electric network must report to the Settlement Center the relevant information in the time frame as specified in these Settlement Procedures.

All required information to be provided monthly to the Settlement Center must be hard copy signed by a responsible company representative. An electronic copy should be sent with the hard copy.

The Staff of ANRE will initially provide all relevant tariffs to the Settlement Center. When a new tariff has been approved for any power sector Licensee, the Staff of ANRE will supply a timely copy of the new tariff.

14.3. RELATIONSHIP OF POWER MARKET RULES TO PAYMENTS

The Settlement Center will maintain a copy of the ANRE-approved Moldovan.

The settlements will be based on the application of the Market Rules and the tariffs for regulated providers and services.

14.4. LOSS CALCULATIONS

14.4.1. Transmission losses

The transmission losses will be calculated for each settlement period.

The Transmission function of Moldtranselectro will provide a list of all connections and interconnections with the Moldovan transmission network.

14.4.2. Calculation of Transmission losses

$TLOSSES = \text{The sum of deliveries} - \text{The sum of receipts}$

14.5. DISTRIBUTION LOSSES

The distribution loss factor will be pre-determined by each distribution company for each billing period.

Each distribution company distribution technical loss factors will be approved by ANRE. ANRE will provide the Settlement Center with the latest approved loss factors to be used in adjusting the delivered sales to retail customers to the transmission receipt connection point. This methodology allows for a proper allocation of the metered receipts between tariff and non-tariff suppliers from the transmission system.

14.6. CALCULATION OF PAYMENTS

14.6.1. Allocation of transmission losses

The transmission losses will be allocated to each supplier based on the percentage of the suppliers allocated transmission receipts compared to the total transmission receipts for all of Moldova for each settlement period.

$ATL (I) = \text{Total Losses} * \text{TRANS REC} (I) / \text{TOTAL REC},$

Where

$ATL = \text{Allocated transmission losses},$

$\text{Total Losses} = \text{Transmission losses calculated for the Settlement Period}$

$\text{TRANS REC} = \text{Allocated energy received by a supplier at any and all transmission substations},$

$\text{TOTAL REC} = \text{Energy received by all suppliers at all transmission substations during the settlement period, and}$

$I = \text{A tariff or non-tariff supplier}.$

14.7. CALCULATION OF NET INTERCHANGE

Net interchange will be the total energy requirements of a supplier plus its allocated share of transmission losses plus the energy delivered by supplier to other Participants pursuant to bilateral contracts less the energy delivered to supplier by other Participants to bilateral contracts less the amount of energy served from its local resources.

If resulting net interchange is positive, then the supplier will share in the market-based purchases from the Balancing Market.

If the net interchange is negative, then the supplier will be compensated at the market-based price of energy on the Balancing Market.

14.8. ALLOCATION OF MARKET-BASED RESOURCES SERVED THROUGH THE BALANCING MARKET

The Settlement Center will calculate the allocation of the market-based resources from the Balancing Market to the positive net interchange

14.9. CALCULATION OF PAYMENTS DURING A SHORTFALL OF FUNDS

(To be developed)

14.10. COMPUTER SOFTWARE AND HARDWARE

14.10.1. Specification of hardware and software

- 14.10.1.1. The Settlement Center will shall have the obligations and responsibilities in respect to new software and its related specification. All software will be fully tested to insure that it complies to the Market Rules and Settlement Procedures. Any future modification to the software will require documented testing and periodic auditing to insure quality.
- 14.10.1.2. Any changes to the Market Rules and Settlement Procedures must be incorporated as soon as possible into the software. If there is difficulty in incorporating the modifications into the software as of the effective date of billing, the Settlement Center will inform ANRE and all power entities.

14.11. HARDWARE SPECIFICATIONS

(To be developed)

14.12. ACCOUNTING AND REPORTING

The Settlement Center will develop and maintain a database all information it collects and all settlements it calculates.

The Settlement Center will provide a detailed confidential report to the Funds Administrator by the 7th working day of the month succeeding the billing month. The same report will be filed with ANRE.

The Settlement Center will report to each Participant the calculations of expenses or revenues specifically related to the Participant's power market activities in the month.

Any information regarding the expenses or revenues will be kept confidential by the Settlement Center. All information for a Participant will be considered confidential and not released unless specifically allowed by written notice from that Participant.

All accounting records will be recorded in accordance with Regulatory Accounting Standards adopted by ANRE.

14.13. TESTING/AUDITING OF METERING EQUIPMENT

(To be developed)

14.14. PERIODIC AUDIT OF THE SETTLEMENTS

(To be developed)

14.15. DISPUTES AND DISPUTE RESOLUTION

A Participant may contest any calculation by bringing any such dispute to the attention of the Settlement Center.

The Participant and the Settlement Center should strive to resolve any dispute without the involvement of others. Any resolution of a dispute must be consistent with all Power Market Procedures.

14.16. BUDGET AND TARIFF FOR SETTLEMENT CENTER SERVICES

The National Dispatch Service will develop a budget (expense and capital) for the following year and a 5-year expense and capital forecast by August of each year. The budget will detail the expenditures with comparisons with the previous years actual expenditures.

The Settlement Center will provide a proposed tariff to ANRE for the following year. The Budget and forecast will be provided to the ANRE with the proposed tariffs.

The Settlement Center will use the latest tariff approved by ANRE as the basis for the allocation of the settlement costs in these Settlement Procedures.

15. MARKET FUNDS ADMINISTRATION

15.1. PURPOSE

A system of market funds administration will be established to clear monetary transactions resulting from services provided by the Market Operator on behalf of Participants. Bilateral contracts will be settled directly by Participants based on data concerning energy flows provided by the Settlements Center.

15.2. FUNDS ADMINISTRATOR

An independent, private commercial bank in Moldova (the “Market Funds Administrator”) shall be selected by Participants to conduct the administration of market funds in accordance with Market Rules and Procedures approved by ANRE.

15.3. COLLECTION AND DISBURSEMENT OF FUNDS

The Market Funds Administrator will collect amounts due from Participants for market services received in the Balancing Market and amounts due for Ancillary Services, both as administered by the System Operator. Amounts paid to the Market Funds Administrator shall be disbursed in like amount to Participants or other entities that provide such services on a timely basis, as provided in Market Rules and Procedures.

15.4. FUNDS ADMINISTRATION COST SHARING

The service costs of the Market Funds Administrator shall be apportioned among all Participants in accordance with Market Rules and Procedures;

15.5. PAYMENT SECURITY

Participants will be required to meet minimum credit worthiness standards and may be required to provide cash payment security through commercial credit resources adequate to meet their anticipated market obligations, all as provided in Market Rules and Procedures.

16. MONITORING OF POWER PROVIDERS AND POWER RESOURCES

The following rule provides for monitoring behavior that interferes with competition in any or all aspects of the Power Market. As the Moldova power markets develop, cooperation and communication between the System Operator and all market Participants will be essential. Participants must understand in detail the Market Rules and how the System Operator interprets and applies them.

In market monitoring the System Operator will, to the extent possible, avoid interfering with competitive price signals. Prices will be allowed to rise to levels determined by competition in periods of scarcity, and to fall to levels determined by competition in times of surplus.

In performing its responsibilities the System Operator, as an initial focus of its effort, will concentrate on monitoring resources and their characteristics. The resource characteristics are a starting point.

16.1. WITHHOLDING OUTPUT

If one Participant (or more than one) exhibits a pattern of withholding, for which the Participant has not supplied an adequate explanation, that materially increases price, the System Operator may impose appropriate mitigation.

Withholding output may take one of two forms: physical withholding (declaring the resource unavailable for some reason) and economic withholding (raising a resource's bid so high it is effectively no longer available to the market). In implementing these mitigation procedures the System Operator will recognize that the same behavior that might sometimes suggest physical or economic withholding is often normal, beneficial and pro-competitive. As long as reliability and security of the system are assured, there are many benign reasons why a resource might be taken temporarily out of service or bid much higher than usual, and therefore not be committed or dispatched.

In and of itself, the fact that a resource was not committed or dispatched due to a high offer or an outage does not indicate any problem with the competitiveness of the markets. For example, every generation resource is subject to unscheduled outages. Additionally, limited fuel or otherwise operationally restricted units can be prevented from running due to lack of fuel, or environmental or fuel limitations.

The System Operator's objective in implementing these mitigation procedures is to distinguish between these normal behaviors and patterns of withholding, whether physical, economic or both, that suggest a problem with the competitive performance of the market may be occurring or developing. If such a pattern appears, the System Operator will analyze it using all available information, including any explanation from the Participant involved, before acting. Mitigation will be imposed only if an anomalous pattern of withholding is not explained to the System Operator's satisfaction and has a material adverse impact on price.

16.2. OTHER ANOMALOUS BEHAVIOR

As the Moldova's markets develop, the System Operator will actively seek to identify any additional patterns of behavior that will be detrimental to the efficient and workably competitive operation of the markets. The System Operator will, in consultation with ANRE develop any additional monitoring and mitigation procedures necessary to deter or correct harmful behavior and ensure competitive efficiency.

16.3. MITIGATION

The System Operator may proceed to mitigation whenever the pattern of a Participant's power offers and/or unit operations appears inconsistent with a competitive market. The System Operator will notify the Participant that is subject to mitigation at or before the imposition of mitigation. The System Operator also will disclose the fact of mitigation and the kind of action taken to the ANRE.

In deciding the type, scope and duration of mitigation measures, the System Operator will take into account the impact of the mitigation measures on competitive market conditions, and will seek to minimize the adverse effects of mitigation measures on competition in the power market.

The System Operator will cooperate with any Participant's attempts to negotiate an appropriate voluntary mitigation measure for any of that Participant's resources the System Operator has decided to subject to mitigation. Such negotiations shall not delay the imposition of mitigation. The intent is to provide the System Operator and each entity subject to mitigation with an opportunity to craft a voluntary solution that corrects the perceived problem as efficiently as possible. Among other things, this flexibility is intended to enable the System Operator to negotiate an appropriate long-term mitigation for potentially long-term or chronic problems, while using appropriate short-term solutions in response to occasional or sporadic problems.

16.4. MARKET MONITORING AND PERIODIC REPORTS BY SYSTEM OPERATOR

The Participants shall provide the System Operator with any and all information within their custody or control that the System Operator deems necessary to perform its obligations under this rule, subject to applicable confidentiality limitations.

This would include a Participant's cost information if the System Operator deems it necessary, including start up, minimum load and all other actual marginal costs, when needed for monitoring or mitigation of that Participant.

If for any reason the requested explanation or data is unavailable, the System Operator will use the best information available in carrying out its responsibilities.

17. TRANSMISSION SERVICE

17.1. OPERATION OF FACILITIES

The Transmission Provider shall provide adequate, reliable electricity transmission services to all Participants on a continuing basis. Operations and maintenance of transmission facilities as it may affect Power Market operations shall be under the general supervision of Central Dispatch in accordance with the specific Operating Procedures addressing transmission operations. The Transmission provider will provide and maintain metering equipment in accordance with applicable Operating Procedures at all delivery points.

17.2. TRANSMISSION PRICING

Properly designed high voltage transmission service pricing with respect to the wheeling of electric power should cover the use of the transmission network system of the entire Moldova Control Area. The arrangements should be design and operated in such a manner as to provide the utmost achievable reliability of power delivery, while encouraging and promoting competition in the electric market to the benefit of the ultimate users of electric power. A truly competitive wholesale power market cannot exist if transmission facilities are manipulated to wield market power over potential competing users. Transparent, open access to facilities and a realistic, practical pricing methodology are essential to create an efficient, economical and competitive bulk power market.

17.3. OBJECTIVES OF TRANSMISSION SERVICE PRICING.

Ideally the wheeling methodology should satisfy the following objectives:

- a) it should ensure revenue adequacy of performing operation and maintenance of the part of transmission facilities which actually perform wheeling;
- b) it should encourage the efficient use and development of the network, both in the short and long term;
- c) it should ensure equity and non-discrimination among market Participants;
- d) it should be reasonably simple and transparent to administer;
- e) it should provide stability over time;
- f) it should be flexible in the short and long term;
- g) it should be able to accommodate embedded generators and private generation stations.

17.4. RECOMMENDED TRANSMISSION SERVICE PRICING.

For the Moldova Power System, the most suitable methodology to accomplish the objectives outlined above is a methodology known as the 'cost based postage stamp rate' method, where a single rate, payable monthly, will cover all wheeling of power from the generating units to the load centers within the Control Area and power deliveries into the Control Area.

This high voltage transmission service rate would be derived by dividing the annual revenue requirements (costs of operating and maintaining the system, including capital costs) of the transmission network facilities (110 kV and higher) that are actually performing wheeling by the aggregating of all loads within the Control Area.

The resulting rate would be submitted to ANRE for approval and, upon approval, would become the wholesale transmission service tariff to be paid by Participants.

Power wheeling required to accommodate bilateral point-to-point contracts in-and-out of (through) the control area, and from the Control Area to the systems outside Moldova would be priced at separate transit rates, subject to ANRE approval. Such prices may be converted as necessary to monthly, weekly, or hourly rates, depending on the length of the transaction. Normally these rates will be paid base on the highest hourly kW value of a particular wheeling transaction.

The revenues received from the payments for wheeling services for transactions through the Control Area, and from the Control Area to the outside of the Control Area would be used to offset the cost of operating and maintenance of transmission network facilities, which in turn would help to lower the transmission wheeling rate for Participants.

Wheeling service under this approach is automatically available to all entities within the Control Area. Power traders within the Control Area would analyze potential power transactions solely on the basis of production cost economics and marketing needs.

The wheeling tariff developed under this methodology would be non-discriminatory, fair and transparent. It would provide good foundation for the future development of the truly competitive wholesale power market without undue influence of transmission service providers.

18. TRANSMISSION LOSSES

For each Settlement Period, the Settlement Manager shall calculate the high voltage transmission losses as the difference between the actual electricity sent directly to the high voltage networks and electricity consumption by suppliers directly from the high voltage networks. These losses, expressed in megawatthours (MWh), shall be allocated among all Suppliers pro-rata to their respective volume of buying transactions.

The objective of this Market Rule is to outline for the System Operator and the Participants the procedures regarding the determination of load quantities used for Settlement of the hourly markets.

18.1. POWER SYSTEM MODEL

The Power System Model is the model that is utilized by the market system for the primary purpose of Settlement of the hourly markets. The modelling and reporting of Generator Assets, Tie Line Assets and Load Assets as documented in this Section provide the structure for the determination of load quantities and market Settlement. The terms Power System Model and network node as defined below have specific meanings in this document with respect to the Settlement process.

18.2. NETWORK NODES

Network nodes represent connection points for modelling purposes and segregation of the network for Settlement purposes.

18.3. NETWORK AREAS

Each network node must be part of at least one network area. Each network area must contain at least one network node.

18.4. TIE LINE ASSETS

A Tie Line Asset consists of physical electrical lines that connect two modeled network nodes. One node is defined as the monitor and the other node is defined as the receiver in order to establish sign convention. Tie Line Assets are interconnections between two nodes which may physically consist of line(s) and/or transformer(s).

18.5. TIE LINE ASSETS MUST BE METERED.

Measurements must be reported from the perspective of the designated monitor node of a tie line, which is the node where the metering is usually located.

A reading is negative (-) if energy is flowing to the monitor node.

A reading is positive (+) if energy is flowing from the monitor node.

18.6. GENERATION ASSETS

Each generator must be individually represented in the power system model. Generator output is reported as a positive quantity.

18.7. LOWER VOLTAGE CONNECTED GENERATION

Generators connected to the lower voltage will be connected to the node where boundary metering is utilized or to the appropriate operating company network node where boundary metering is not utilized. The term boundary metering means that the Asset metering systems with respect to a particular node has been designed to insure that all related losses are external to Assets connected to the node.

18.8. LOAD ASSETS

All Participant load must be modeled in the power system model for Settlement purposes. The System Operator is responsible for the modeling, determination and allocation of load associated with all transmission losses.

18.8.1. Technical Requirements Of The Power System Model With Respect To Loads

- a) Load Assets will be represented in the Power System Model to meet the needs of Settlement.
- b) Each Participant may have a Load Asset on any node. A Participant may have more than one Load Asset on an individual node; however, it is intended that the number of Load Assets related to a single Participant on each node will initially be kept small .
- c) Modeled load can be assigned by percentages to Participants, based on ownership/entitlement as part of the Load Asset registration process.
- d) Power flowing to serve a Load Asset is reported as a negative quantity.

18.8.2. Customer Load

This is Energy that is utilized to serve the retail customers of a Participant. Typically individual customers are not modeled and reported as individual Load Assets but are normally combined.

18.8.3. Station Service (unit shut down) Loads

Station service load is energy utilized by generating facilities when not delivering net generation to the power grid. This load may include energy while a unit is economically dispatched off-line, on a maintenance outage, starting up or shutting down.

18.8.4. Determination of Load Asset Quantities on a Node by Node Basis

The following procedures will be utilized to determine the non-PTF demands of a node.

18.8.5. Assigned Meter Reader Responsibilities

The metering is available to directly determine individual hourly Load Asset quantities, the Assigned Meter Reader will report the quantities to the System Operator.

If Load Asset quantities cannot be determined directly from metering, they may be estimated through load profiling.

18.9. DEVELOPMENT OF ELECTRICAL LOAD VALUES

Electrical Load, is an hourly quantity and is stated in Kilowatts. Electrical Load is required for Market Settlement. Electrical Load must be calculated for each Participant, for each hour of each month.

The defined quantity Electrical Load, in a given hour, includes the following components:

- a) kilowatthours provided by the Participant to its retail customers for consumption,
- b) plus: kilowatthours used by the Participant for its own purposes and station service, provided such energy is not provided through retail service and reflected in item 1 of another Participant,
- c) plus: kilowatthours of electrical losses allocated to the Participant,
- d) plus: kilowatthours of unaccounted-for use allocated to the Participant which is not reflected in item 1 of another Participant,
- e) plus: kilowatthours of Electrical Load responsibility incurred due to a purchase from another Participant pursuant to a Load Asset Contract for Electrical Load,
- f) minus: kilowatthours of Electrical Load responsibility sold to another Participant pursuant to a Load Asset Contract for Electrical Load,
- g) plus: kilowatthours delivered to Non-Participants on a wholesale basis outside of the Moldova Control Area,

The resultant quantity expressed in kilowatthours per hour equals the Participant's Electrical Load in Kilowatts for that hour.

18.10. CALCULATION OF THE DEFINED QUANTITY ELECTRICAL LOAD

- a) The System Operator will calculate for each Load Asset any Participant's net percentage of a Load Asset entitlement resulting from its registered percentage of a Load Asset and/or by any positive or negative percentage of entitlement pursuant to a Load Asset Contract for Electrical Load.
- b) The System Operator will sum for each Participant the net entitlements from all Load Assets for which the Participant has an entitlement.

Losses on the transmission system will be determined for each hour and each Participant's obligations will be adjusted for its share of those losses. Losses associated with contractual arrangements for power flowing from within the Moldova Control Area to an external control area (Out losses), will be determined and the obligations of the contracting parties (including non-Participants) will be adjusted for their share of those losses.

18.11. DETERMINATION OF TOTAL TRANSMISSION SYSTEM LOSSES

The total transmission system losses to be allocated is determined in following manner:

The total hourly transmission system losses is equal to the total metered generation within Moldova minus total metered loads within Moldova plus the metered flow in minus the metered flow out on Moldova's ties to neighbouring control areas in each hour. The total

19. SEVERABILITY AND RENEGOTIATION

If any provision of these Market Rules is held by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of these Market Rules shall continue in full force and effect and shall in no way be affected, impaired or invalidated, except as otherwise explicitly provided in this Section.

If any provision of these Market Rules is held by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, or if these Market Rules are modified or conditioned by a regulatory authority exercising jurisdiction over these Market Rules, the Participants shall endeavor in good faith to negotiate such amendment or amendments to these Market Rules as will restore the relative benefits and obligations of the Participants under these Market Rules immediately prior to such holding, modification or condition

20. AMENDMENTS OF POWER MARKET RULES

These Power Market Rules and any attachment or exhibit hereto may be amended from time to time by an instrument approved by the Market Board and signed by Participants. Any amendment to these Market Rules shall be in writing and shall become effective on the date specified in the amendment, subject to acceptance or approval by ANRE.